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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,351	12/01/2004	Eiko Shimizu	018793-274	9534

21839 7590 02/23/2006

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EXAMINER

LIU, JONATHAN

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/516,351

Applicant(s)

SHIMIZU ET AL.

Examiner

Jonathan J. Liu

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/1/2004</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-3, and 9-10 objected to because of the following informalities: the specified claims recite the phrase "the filling chamber." As understood by the examiner, this phrase is interpreted as the "the multiple filling chambers" as recited in claim 1. Applicant is advised to change "the filling chamber" to "the multiple filling chambers" where appropriate. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Balaton (US 5044030). Balaton discloses a cushion comprising multiple filling chambers (see figure 4), wherein the filling chambers are formed of flexible sheets (col. 2, lines 50-53), a gel-like heat medium is charged into the filling chambers (col. 5, line 3), and the filling chambers are expanded by a pressure of the heat medium.

Regarding claim 10, the sheets forming the filling chamber are a pair of opposite thermoplastic resin sheets, which are heat-bonded along the contours of the filling chamber to define the filling chamber (col. 3, lines 45-47).

With respect to claim 11, the mat provides flexible fins, which are extended outwardly from at least a part of margins (see figure 4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Kitagawa (JP 10-304950). Balaton discloses the mat as claimed in claim 1. However, Balaton fails to disclose inserting bags of the heat medium into the filling chambers.

Kitagawa discloses a mat comprising an inner bag containing the heat medium, said bag being enveloped by a filling chamber (see figure 3). The reference suggests that the heat medium is charged into the filling chamber by charging the heat medium into a bag capable of being inserted closely into the filling chamber, inserting the bag having the heat medium charged therein into the filling chamber and sealing the filling chamber. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cushion taught by Balaton with charging bags with a heat medium, and inserting said bags into the filling chambers in order to provide for easy replacement of the heat medium bags in case of punctures/tears.

Regarding claims 4 and 5, see the explanation of claims 10 and 11.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Kitagawa (JP 10-304950) as applied to claim 2, in further view of Perdelwitz et al. (US 4886697). Balaton as modified, discloses the mat of claim 2. However, Balaton as modified, fails to disclose an emboss near a filling chamber.

Perdelwitz discloses embossing a thermoplastic material in order to increase the density of the article (col. 12, lines 5-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Balaton as modified, with the embosses as taught by Perdelwitz in order to increase the density of the cushion near the ends of the filling chambers.

6. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Kitagawa (JP 10-304950) as applied to claim 2, in further view of Navarro (US 6226820). Balaton as modified, discloses the mat of claim 2. However, Balaton as modified, fails to disclose wherein the heat medium is a cooling and heating material.

Navarro discloses a gel pad wherein the gel can retain heat (thereby making it a warming material) or cold (thereby making it a cooling material) depending on the temperature to which the gel has been subjected (col. 5, lines 45-48). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Balaton as modified, with the gel as either a warming or cooling material as taught by Navarro, in order to make the user of the mat comfortable.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Kitagawa (JP 10-304950) as applied to claim 2, in further view of Carson (US 6375674). Balaton as modified, discloses the mat of claim 2. However, Balaton as modified, fails to disclose wherein the heat medium is a hydrogel.

Carson discloses a cooling/heating pad comprising a hydrogel to achieve a relatively high thermal conductivity (col. 9, lines 12-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to alter the cushion taught by Balaton as modified, with the hydrogel as taught by Carson in order to improve the thermal conductivity of the cushion.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Perdelwitz et al. (US 4886697). Balaton discloses the mat as claimed in claim 1. However, Balaton fails to disclose an emboss formed in the vicinity of one end of the filling chambers. Regarding this claim, see the explanation of claim 3.

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Navarro (US 6226820). Balaton discloses the mat as claimed in claim 1. However, Balaton fails to disclose wherein the heat medium is a warming material or a cooling material. Regarding these claims, see the explanations of claims 6-7.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balaton (US 5044030) in view of Carson (US 6375674). Balaton discloses the mat as claimed in claim 1. However, Balaton fails to disclose wherein the heat medium is a hydrogel. Regarding this claim, see the explanation of claim 8.

**Conclusion**

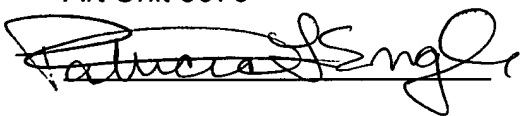
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan J. Liu whose telephone number is (571) 272-8227. The examiner can normally be reached on Monday through Friday, 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan J Liu  
Examiner  
Art Unit 3673

Patricia Engle  
Supervisory Primary Examiner  
Art Unit 3673

A handwritten signature in black ink, appearing to read 'Patricia Engle', written over a horizontal line.